

余湛

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教育背景

威斯康星大学麦迪逊分校 (US News 美国排名 41, QS 世界排名 65)

09/2019 – 05/2023

- **GPA:** 3.85 / 4.0
- **专业:** 计算机科学、数据科学
- **荣誉/奖项:** Spring 2020 & Fall 2020 Dean's List
- **核心课程:** 人工智能, 操作系统, 算法, 线性代数, 数据编程, 数据模型(R)

实习经历

商汤科技开发有限公司

上海, 中国

Java开发实习生

2021-05 – 2021-09

小组主要承担OA系统集成的一些主流应用的设计和开发, 包括员工管理、餐饮管理、企业滴滴和访客及车辆预约等。实习期间主要参与企业滴滴/企业微信模块开发和预约系统的开发。

技术栈: SpringBoot、MyBatis、Redis、MySQL

- **完善企业微信/企业滴滴功能:** 运用SSM框架完善企业微信内员工信息模块以及企业滴滴订单管理相关功能
- **访客/车辆预约系统**
 - 设计访客、车辆预约系统的业务逻辑、前端原型设计和后端接口梳理。
 - 参与访客、车辆预约系统中设计到的主要功能点开发, 包括访客、车辆预约, 车位释放, 预约更新等, 采用Synchronize锁的方式保证多人同事申请单车位时可能产生的线程不安全的问题。
 - 为保证用户登录时的身份检验的安全性, 使用阿里云服务与Redis缓存的检验方式实现了用户登录验证功能, 设计用户表对用户信息进行持久化。
 - 系统代码模块化封装, 保证代码的复用性以及后期可维护性。

项目经历

程序员技术交流平台

2021-01 – 2021-05

项目介绍: 论坛项目的具有登录注册、发帖、评论、私信、转发、系统通知、搜索、热帖排行功能

技术栈: SpringBoot、SSM、Redis、Kafka、ElasticSearch、SpringQuartz、Caffeine

- **登录注册功能:** 考虑到密码的安全性, 本系统选用密码MD5加密的方式。在分布式部署的时候会存在session共享的问题, 因此本系统选用kaptcha去生成验证码, 使用邮件完成注册, Redis优化验证码的保存, 解决分布式session问题。
- **拦截器:** 利用拦截器拦截用户请求, 将用户信息绑定在ThreadLocal上。
- **发布帖子与敏感词过滤:** 发帖构建Trie数据结构, 实现对发表帖子评论的敏感词过滤。
- **点赞关注功能:** 利用Redis实现对帖子、评论点赞功能来提升性能, 同时利用Redis的zset并结合Redis实现对其他用户关注的功能。
- **异步消息系统:** 鉴于点赞关注后的系统通知实时性不需要特别高, 因此选用了kafka实现异步的发送系统通知。
- **搜索功能:** 选用ElasticSearch实现对帖子的搜索功能, 以及结果的高亮显示。
- **定时热帖排行:** 鉴于热帖排行功能需要每隔段时间从数据库中查询最热门的帖子显示, quartz实现定时任务的参数是存储到数据库中的, 不会出现重复代码的问题, 因此本项目利用的是Spring Quartz完成热门帖子的分数计算模块。
- **多级缓存:** 考虑到热门帖子数量不大, 直接存储在服务器本地上并不会给服务器带来过重的存储负担, 而且热门帖子的改变并不是很频繁, 适合缓存存储, 因此选用Caffeine本地缓存存储。利用本地缓存+Redis+DB的形式避免缓存雪崩, 提高系统的可用性。

xv6 操作系统改进

2020-10 – 2020-12

- **优化睡眠唤醒机制**并通过进程唤醒时安排进程更长的时间片来补偿它们被阻塞的时间量来优化轮询法策略
- 通过更改页表条目来**加密和解密虚拟页**来防止没有许可的攻击者更改和接触部分内存
- 增加 4 个新的**系统调用**来获取进程的时间片和信息以及页表信息和物理页的原始内容
- 以环形缓冲区作为队列装载页使得内核能够管理页的加密和解密, 并实施**时钟算法** (second-chance FIFO) 优化页的淘汰机制来增加页解密的效率

技能

编程语言: Java, Python, C, SQL, JavaScript, HTML, CSS

工具/框架: Git, SpringBoot, React, RESTful, Redis, MongoDB, Mybatis, Postman, Linux

语言: 托福 103 / 120; SAT 1450 / 1600

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EDUCATION

University of Wisconsin-Madison

09/2019 – 05/2023

Bachelor of Science in **Computer Science**

Madison, WI

- **GPA:** 3.85/4.0
- **Core Course:** Programming III, Artificial Intelligence, Operating System, Data Structure and Algorithm, Data Programming, Data Model, Linear Algebra

EXPERIENCE

SenseTime

05/2021 – 09/2021

Software Engineer Intern

- Expanded backend modules on tracking more than 500 daily Enterprise Didi (Uber-like) orders to have better management, based on **SSM** framework (**Spring, Spring MVC, MyBatis**).
- Optimized employee information module on Wechat-enterprise by building **RESTful** APIs.
- Built responsive interfaces for user authentication and visitor/vehicle appointment etc. by **React** with **Redux** to better manage the data flow and state sharing during development.
- Simplified user authentication process by using **Passport** to integrate local authentication
- Ensured the security of identity verification during user login by using the verification method from Alibaba cloud service and **Redis** cache.
- Developed major functionalities on backend including reservation of parking space, parking space release, visitor appointment update, etc. and managed user data by **SSM** framework (**Spring, Spring MVC, MyBatis**).
- Ensured the stability of the system by using **Jest** and **Enzyme** to do unit test on React components and **Postman** with **Newman** to do interface test during website development.

PROJECTS

Programmer Communication Platform

01/2021 – 05/2021

- Integrated **SpringEmail** and **Kaptcha** to configure verification code during login and send activation email during register, ensuring the security and effectiveness of each account.
- Used **Ajax** and **Trie** on post publishing to asynchronous process requests and filter sensitive words.
- Integrated **Kafka** with **MQ** which has great performance on functionalities with high access frequency, such as giving likes and commenting, to improve the response speed of the platform.
- Built post search module by **Elasticsearch** to keyword searching on posts of the whole platform.
- Improved CPU throughput and read/write efficiency by local cache **Caffeine** and **Redis**.

Todo Management Application

08/2021 — 09/2021

- Utilized **React** and **Java Spring Boot** to support create, update and delete Todo item functionalities.
- Configured **Basic Authentication** RESTful service and **JWT** in Spring Security to realize user login/logout.
- Combined Java, **JPA** and **Hibernate** for data storage and modification with **REST** API.

Communication Platform for Epidemic

10/2020 – 12/2020

- Implemented responsive layout and user interaction by **Bootstrap 5** and **jQuery**.
- Utilized **NodeJS** and **Express** to build RESTful routing on the server side to handle user requests.
- Managed and stored appointment/user data by utilizing **Mongoose** and **MongoDB Atlas** database.

Web crawler

08/2020 – 10/2020

- Utilized **BeautifulSoup** to crawl more than 60 news titles, profiles, labels and other information on the BBC News Home page, and classify them into **MySQL** database.
- Utilized **Pandas**, **Matplotlib** to monitor news features per month and analyze top 5 hot topics.

SKILLS

Programming Language : Java, Python, C, SQL, JavaScript, HTML/CSS, R

Frameworks : Spring Boot, MyBatis, Node.js, Express.js, React, jQuery, Bootstrap

Tools : MySQL, MongoDB, Redis, JUnit 4, Git, Linux, Postman, Kalkfa